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A Christian Science Church

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A CHRISTIAN SCIENCE CHURCH

BY

LEON JOSEPH CORBEY

T H E S I S

FOR THE

DEGREE OF BACHELOR OF SCIENCE

IN

ARCHITECTURE

COLLEGE OF ENGINEERING

UNIVERSITY OF ILLINOIS

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June 1st, 1913.

THIS IS TO CERTIFY THAT THE THESIS PREPARED UNDER MY SUPERVISION BY

LEON JOSEPH CORBEY

ENTITLED

A CHRISTIAN SCIENCE CHURCH

IS APPROVED BY ME AS FULFILLING THIS PART OF THE REQUIREMENTS FOR THE

DEGREE OF BACHELOR OF SCIENCE IN ARCHITECTURE

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A CHRISTIAN SCIENCE CHURCH.

Program.

At the end of a long and straight avenue in a city of 50,000 inhabitants is situated an ideal lot for a beautiful church edifice. The lot forms a termination for the avenue which curves at this point. The avenue runs north and south, and at the place where it curves a boulevard extends directly west. The ground of the lot which is surrounded on all sides by streets gradually slopes upwards from the avenue and the boulevard, and upon this sloping ground is to be erected a Christian Science Church with a seating capacity of 500 people.

Since the lot is very large and offers such a fine opportunity for landscape development, an outdoor Sunday school, surrounded by trees and shrubs, is to be provided for.

Following are the requirements of the problem:

1. An auditorium to seat 500 people.
 - (a) Space for organ and a platform for the readers.
2. An entrance foyer to the auditorium.
3. A large Sunday school room.
 - (a) Landscape is to be arranged for an out-door Sunday school, in order that Sunday school service may be conducted on the lawn.
4. Two readers' rooms with a small private toilet.
5. An organist's room.
6. A soloist's room.

7. A Board of Directors' room.

(a) This may be a large room which can also be used as a reception room where the candidates to church membership can sign their names in the church book.

8. A public reading room from 300 to 500 sq. ft. in area.

9. A men's toilet.

10. A men's cloakroom.

11. A ladies' toilet.

12. A ladies' cloakroom.

13. A janitor's room.

14. A balcony is desirable but not absolutely necessary.

It should be placed, preferably, in the rear of the auditorium over the entrance doors.

The toilets, cloakrooms and stairs should be grouped off from the foyer or around it.

In addition to the above, a small room may be provided for the Clerk of the Church, and one for the ushers; also one or two committee rooms.

Choice of Subject.

A Christian Science Church was taken for a thesis subject because of the original study this problem offers, and partly because the designer himself is a Christian Scientist. The first Christian Science Church was built less than twenty-five years ago, and no particular style of architecture has been devised for it, although many people seem to think that the Greek Classic expresses the religion more than any other

style.

Method of Procedure.

Before starting on the design of this problem it was necessary to do some research work in the line of sketching from ancient and existing examples. Sketches were made of the plans of the old churches and cathedrals, and these plans were studied and compared with what should constitute the plan of a Christian Science Church. The plans, elevations and sections of St. Peters at Rome, the Pantheon at France, the church of the daughters of Assumption in France, and the Pantheon at Rome, were sketched, and their main lines were studied. Sketches were also made of what few examples of Christian Science Churches that could be obtained. Much inspiration was derived from the Madison Square Presbyterian Church of New York City, by McKim, Mead and White. The plan of this Church is similar to the plan of a Christian Science Church, and it was interesting to see how these architects expressed their plan in elevation.

In addition to the sketching written information was sought for, but unfortunately very little has been written about the Christian Science Church from an architectural standpoint, this being, no doubt, due to the fact that the Church is so young.

Before designing a church the designer should know what it is to be used for, the character of the services and the most important principles of the doctrine it teaches. The Christian Science Church is used for the holding of services

and lectures on Christian Science, but, unlike other churches, it is never used for social or other purposes. The service of this church is very simple, and has no ritual or ceremony of any kind in connection with it. The main part of the service consists of readings from the bible and correlative passages from the Christian Science text-book, "Science and Health with Key to the Scriptures" by Mary Baker Eddy; hence the plan of the church should be simple with nothing to suggest mystery or ceremony. The Wednesday evening service is in the nature of a testimonial meeting where people tell of their healing and experience in Christian Science, hence the necessity of good acoustics. Due to the fact that the audience joins in responsive reading from the scriptures there should be plenty of natural light.

"Christian Science is anything but mystical or esoteric, but stand for all that is scientifically true, rational and natural." It demands truthfulness and honesty in all things. Mrs. Eddy, on page 385 of her book, Science and Health with Key to the Scriptures, gives the following definition of the word church: "The structure of Truth and Love; whatever rests upon and proceeds from divine Principle. The Church is that institution which affords proof of its utility and is found elevating the race, rousing the dormant understanding from material beliefs to the apprehension of spiritual ideas and the demonstration of divine Science, thereby casting out devils, or error, and healing the sick." Hence, a Christian Science Church should express truth or truthfulness in construction,

harmony, oneness or unity, and simplicity in outline as well as in plan.

In solving the problem the first thing to be considered was an auditorium with plenty of natural light; hence, a building with a dome containing windows was chosen. A foyer must next be provided for, and this suggested a portico for an entrance. The readers' rooms, organist's room, soloist's room and Board of Directors' room were naturally placed in the rear of the building, and were arranged so as to be in direct communication with the readers' platform. The Sunday school, toilets and cloakrooms were placed in the basement or ground floor.

Numerous schemes were made before the problem was finally solved. In the first scheme the entrance was on the ground floor, together with the foyer which was placed directly beneath the auditorium. An attempt was made to group the Sunday school rooms, cloak rooms and toilets around the foyer, but with no success, because in so doing the foyer could not be properly lighted by natural light, and this arrangement for the Sunday school also proved unsatisfactory. Next an attempt was made to divide the space beneath the auditorium into a Sunday school room in the rear half, and a large foyer in the front half, the main stairs to the auditorium being arranged in the form of tunnel stairs; but this sort of an arrangement for stairs is undesirable, because it breaks up the space in the auditorium, and forms an ugly spot which cannot escape the view of the readers. Finally, the entire space beneath

the auditorium was given up to the Sunday school, and the foyer was placed farther to the front with stairs at each end leading up to the auditorium.

Upon further study it was found that there was yet room for improvement. The arrangement of the stairs was unsatisfactory, and after considerable study the idea was conceived of having the main foyer on the same level with the auditorium, and to have a large flight of steps in front of the portico leading up to the main entrance. This flight of steps would make the people feel the necessity of rising higher and higher, away from the material plane of thinking up to the spiritual, before they could partake of the spiritual food which was offered within this temple. The entrance doors would then be on the same level with the auditorium, and would lead directly to it, whereas before, the main entrance was on the ground floor leading directly to the Sunday school, and in order to get to the auditorium it was necessary to climb a flight of stairs. The entrance in the last scheme was truthful, in that it led directly to the foyer which preceded the auditorium, whereas in the former case it was deceiving, because it did not lead directly to the auditorium as the exterior suggested. A secondary foyer was placed on the ground floor directly beneath the main foyer, and around the former were grouped the toilets and cloak rooms.

By placing an auxiliary foyer on the ground floor two difficulties arose. The first was to provide an outside entrance to the ground floor, and the second which was, perhaps, more

difficult to solve, was to provide stairs leading up to the main foyer or directly to the auditorium. In the first solution of this difficulty the stairs were placed at each end of the foyers, but this arrangement was objectionable on the ground foyer, because it cut off the only possible chance for natural light, and also the most logical place for an entrance. However, at this time no other solution presented itself, and this arrangement of the stairs was used on the second preliminary sketch for the thesis.

At this stage of progress the plan seemed to be fairly satisfactory, but the front and side elevations were not. The dome did not seem to be connected to the building, and the treatment of both the openings and the wall of the side elevation was not pleasing. Finally, with more study, and after the scale of the drawings had been doubled, two separate schemes were worked up.

The first scheme was an improvement upon the second preliminary study, and was developed directly from it, using the same general outline and treatment of the exterior. The plan had been greatly improved, and the difficulty with the stairs was finally overcome by placing them in the corners of the building instead of at each end of the foyers.

The plan of the second scheme was similar to that of the first, but the elevations were entirely different. In place of the plain wall containing a large arched window, as in the side elevation of the first scheme, a pediment was placed on each side with four one-half engaged columns, the windows

being placed in between them. The entrance portico was also changed. Instead of using columns at the end of the colonade piers were used.

After carefully examining both schemes, the second one was chosen for the final drawing. Due to the fact that the pediments were merely "stuck" on the sides, and, because they had no constructive purpose whatsoever, but were false in that they concealed the arches on the interior, they were removed and a large arched opening which would express the interior arch was used for the windows. The dome caused the greatest difficulty. It seemed to be Byzantine in treatment, while the building itself was classic. The problem was to design a dome that would harmonize with a Greek Classic building. It may be asked "Why was the building treated in a classical style?" Simply because the designer felt that the Greek classic style best expressed what he was striving for. What this building should express has already been mentioned. Much inspiration was derived from Bramante's dome in his design for St. Peters, chiefly for its pleasing outline.

An attempt was made to carry the cornice line of the entrance portico around the entire building, but this was impossible because the center of the interior arch was below this line. It would have been possible if a segmental arch had been used, but such an arch would not be so pleasing in this case as the circular arch. For this reason the cornice of the side columns was placed on line with the bottom of the architrave of the pediment.

Although this thesis design was not a very large one, many difficulties were encountered and considerable study and sketching were required before the problem was finally solved.

In the ground lay-out the trees were placed so as to conceal the space to be used for the out-door Sunday school from the street view. In places where the same effect is desired in winter as in summer, evergreen trees were mingled with the other trees.

Information obtained for the requirements and history of the church.

The only written information that could be found on the subject of Christian Science Churches was obtained from two magazine articles. One is entitled "The Architecture of the Christian Science Church" and appeared in "The World To-Day", June, 1907. The other is entitled "The Architecture of a Christian Science Church" and appeared in the Architectural Record, February, 1904.

The first article, which was written by S. S. Beman who has designed more Christian Science Churches than any other architect in the country, is as follows:

"Some time since the question was asked: 'When Christian Science, whose phenomenal growth and the substantial quality of its followers indicate it to be a vital religious force in the world, commences to erect its own church buildings, what will be its architectural form of expression?' The question is worthy of serious

consideration. When one forecasts the future of the expansion of a great religious movement, it is easy to see that the accomplishments of the past argue a great era of Christian Science church building. It is not too much to say that every city, and average village too, will sooner or later have its Christian Science church, and many of the larger cities a liberal number. For instance, Chicago has seven growing church organizations, with five large church edifices, and more in contemplation; and the same growth may be seen in New York and other cities. The future gives promise of an interesting development of religious architecture which will influence architectural art generally.

Architecture reveals most perfectly the real meaning and power of every civilization, and its scope and subtlety make it a reliable medium for the visible portrayal of the inner spirit and life of its makers. It is, moreover, because of its public nature, the magnitude and grandeur of its creations, the useful ends which it subserves, and its intimate relation with the larger life of the people, likely to summarize their science, history and religion, as well as their art.

Architecture finds in religion its most powerful incentive. Religion creates a nation's ideals, and in its architecture we must trace their record, for, as it has been aptly said, architecture is the chief conservator of the history of nations.

It is chiefly from its architecture that we discern in a community its sense of beauty and its general plane of thought. Can it also suggest or express with any degree of directness anything of the faith and spirit of its builders? If so, what architectural form shall be its utterance?

This, in view of the future promise of the spread of the Christian Science thought, is a question of consuming interest to all who have seriously at heart the true interests of art development.

There have been many splendid church buildings erected in the last few years by the Christian Science denomination throughout this country, and a number in Europe. Some of these buildings are unusually large and costly, and as a whole they compare most favorably with the church buildings of other denominations, with respect to architectural and structural quality. It will be seen from the illustrations which accompany this article that both the classic and Gothic styles have been drawn upon for Christian Science Churches, but that the pronounced leaning is to the classic.

Christian Science is anything but mystical or esoteric, and as understood and followed by its earnest votaries stands to them for all that is scientifically true, rational and natural. From which we must infer that strange forms and symbolisms can never be tolerated in its church building or any other of its visual expressions.

The teachings of this church seem not to be in sympathy with the man-made ecclesiastic creeds, present or

traditional, and ritualism, forms and pageantry have little place in its simple and direct service. Yet there is an instinctive feeling in this church for a certain calm harmony and dignity of architectural environment. And while it is true that this effect is not always realized in their churches it has invariably been the writer's experience with numerous building committees of this faith, that a sincere and undoubted desire for a consistent and architectural expression has always been present and paramount.

The Gothic style has been interwoven in warp and woof with everything ecclesiastical and the emotional ceremony and forms of what is called the Orthodox Church. In fact, the Gothic style is the very outgrowth and development of such ritualisms, and is quite the essential artistic frame and background of ecclesiastical rites and ceremonies. It is, then, hardly to be expected that Christian Science should find its expression through its churches to any great extent in Gothic architecture. Yet what is more artistically inspiring than the lofty grandeur and sublimity of the old Gothic cathedrals?

Yet, as has been said, thus far architecture along classic lines has found most favor with Christian Science church builders. And granted that this faith is founded on the principles already stated, it follows logically that it is likely to favor classic architecture for its churches. This style, with its sense of calm power and dignity, and with its true systems of proportion, its sincerity and refinement, and I may add its rationalism, seems to represent

the faith of those who employ it in their houses of worship.

The Grecian architecture of the Athenian Acropolis, embracing as it does three developed types, is conceded by all authorities to have reached the highest architectural perfection. It is grounded on exquisite artistic subtleties of line and mass where, in the truest sense, there is nothing wanting in proportion. All of this is based on a mathematical inflexibility which is most fascinating to analyze. The purest type of the ancient Greek temples was the outgrowth of a naturalistic and rationalistic religion, and reached its highest culmination of perfected beauty during the age of Pericles when the human intellect blossomed out with an artistic perfection the long ages have never dimmed, but rather have made more appreciable.

The Greek style not only has continued to live and flourish to this day, but from its singular vital force has shown such a power of successive transformation that while it has assumed an almost wholly different form, we can recognize in its last developments the uninterrupted descent from the first principles of truth in which this beautiful architecture is so firmly rooted. It matters not that they be called pagan temples. Their beauty is our inheritance and stands for our guidance and inspiration when we have a truly great thought to express in architectural terms.

Why then should not this straightforward and enduring architecture be the logical outward expression of a teaching which so forcefully concerns itself with the present welfare of man, and a doctrine which in so large a measure addresses

itself to the well-being of the individual man here on earth?

The Christian Science Church services are very simple in their character, without ritual, and consist of readings from the Bible and the Christian Science textbook on Sundays and the testimony meetings during the week. The nature of these meetings makes it necessary that the readers should be heard from all parts of the auditorium, and it is also desirable, but not particularly necessary, that a full view of the readers' platform be had from any point. At the testimony meetings during the week many people address the audiences from all parts of the room and being for the most part unaccustomed to public speaking, it is imperative that the acoustic properties of the audience room be as nearly perfect as possible. The room must be planned to meet successfully these essentials. Furthermore, the fact that the entire audience joins in the responsive reading from the Scriptures renders the proper natural lighting of the room by day and the artificial lighting by night very important.

As to the seating, it is aimed to make it as practical and comfortable as possible by banking up the rows of seats away from the readers' platform, which is the focus point of the auditorium. Opera chairs seem to be the most practical and comfortable and, therefore, most in favor.

Special consideration is given the matter of ingress and egress, and invariably broad and numerous stairways are provided to reach and leave the auditorium. These stairways are usually placed at each corner of the building, and

a central tunnel stairway introduced as well.

Back of the readers' platform is placed a small room for each reader, a committee room or two, and a room for the soloist, all of which open on a common hall. The organ is generally placed over these rooms. The auditoriums of the larger churches are invariably high and impressive, and often ornamented in the center by a large domed leaded glass ceiling light.

These, in brief, are the general characteristics of the Auditorium floor.

There is one feature of the Christian Science churches which distinguishes them from the usual church type, and while not absolutely essential, it is very desirable and embraced in the plan of every church where the conditions of site permit it. This is the large inner vestibule, or what it is the fashion to call the 'foyer'. This great room is nearly the area of the auditorium which is built above it, and all the stairways lead upward from it. It is generally calculated to contain about seventy per cent of the audience standing. This foyer incidentally fulfills the function of a large meeting place for the people to exchange greetings after the service, and furnishes a place for parents to wait for their children during Sunday-school.

There are almost invariably commodious cloak rooms where hats, coats, etc., may be checked, comfortable and well-lighted toilet rooms, often a public reading room where Christian Science literature may be found, besides the usual directors' room, a small office for the church clerk, and

other utilities.

The larger churches generally have commodious, well-lighted Sunday-school rooms, but when space will not permit a separate room, the Sunday-school is held in the main auditorium.

It will thus be seen that the general design and features of the Christian Science house of worship are of a practical, straightforward, utilitarian character, and these basic necessities are clothed in the most artistic and consistent architectural form within the reach of the building committee."

Classification of the Rooms.

1. Auditorium.

- (a). Seating capacity --506 people exclusive of balcony which will seat 75 people.

2. Readers', soloist's and organist's rooms.

- (a). Grouped in pairs with private toilets, and made as exclusive as possible.

3. Board of Directors' room.

- (a). A large and comfortable room for the Board to meet in; to be used also as a reception room.

4. Toilets and cloak rooms.

- (a) In connection with ground floor foyer.
- (b) Cloak rooms during services are in charge of boys who check the people's wraps.

5. Ladies' rest room and ushers' room.

- (a). In connection with ground foyer.

6. Reading room.

- (a). The reading room is open to the public daily except Sunday. Here all of the Christian Science

literature and bibles are on sale, and are kept on the tables for the free use of the public.

- (b). For this reason the reading room was placed on the ground floor, and close to an entrance. A walk leads from the front of the building to the reading room entrance in order to make it easily accessible.

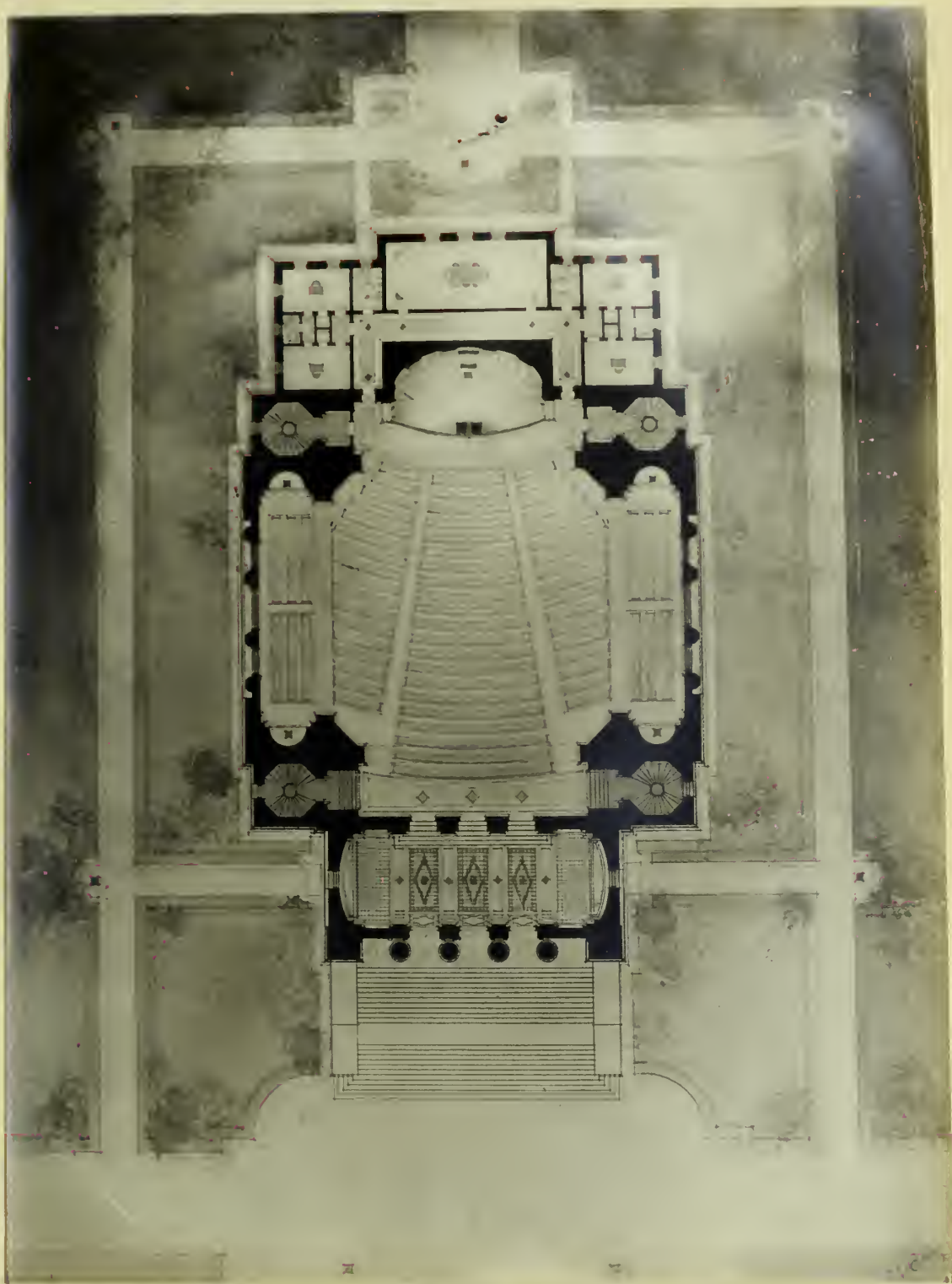
7. Committee room.

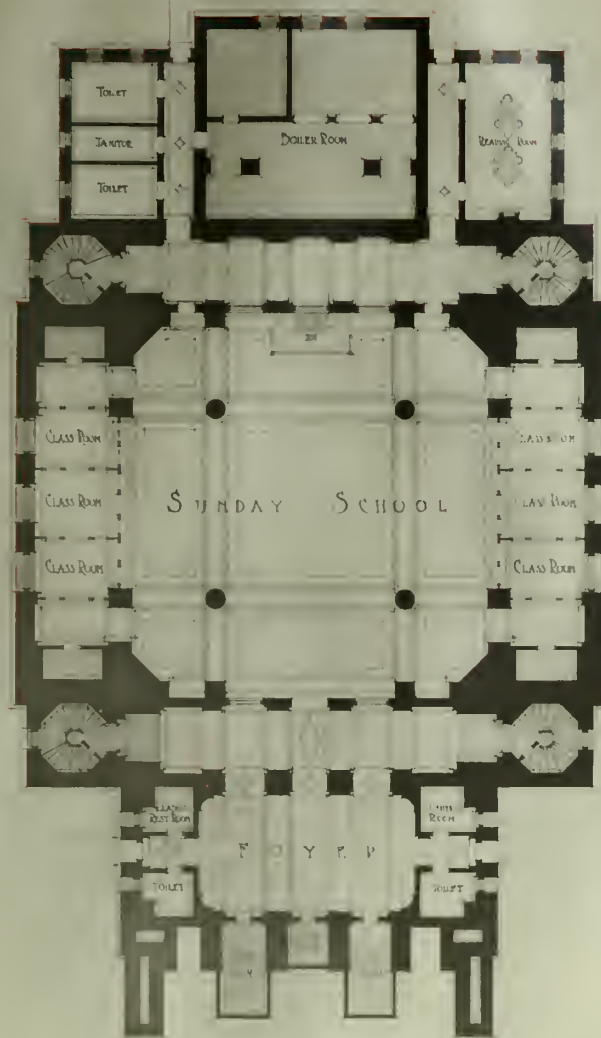
- (a). Placed on the ground floor, and to be used by any of the church or Sunday school committees.

8. Janitor's and furnace rooms.

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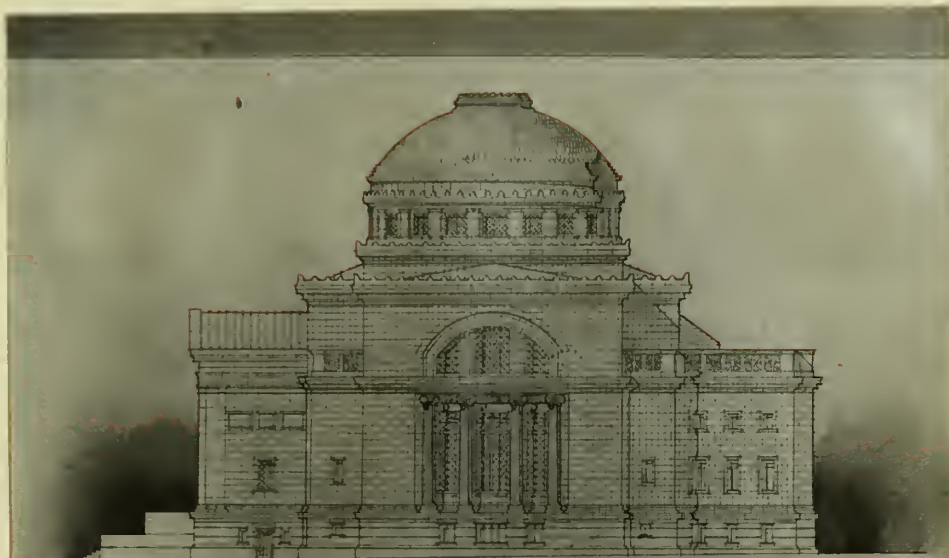




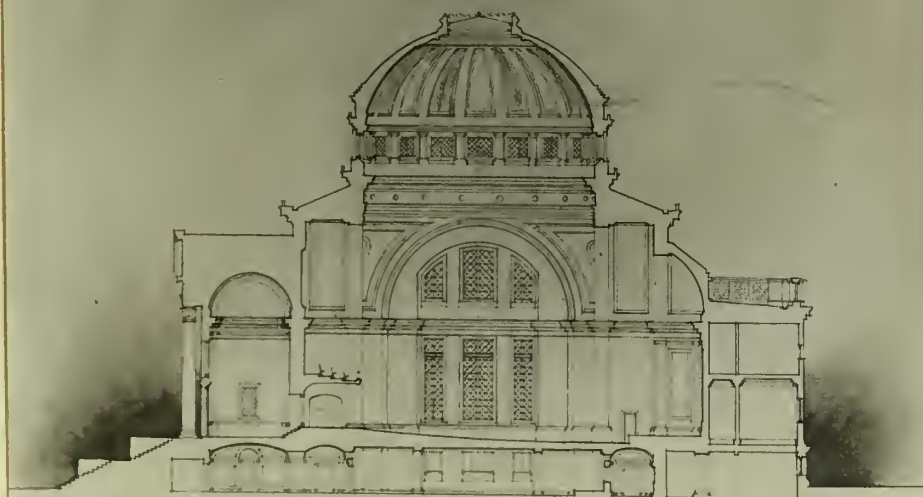
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SIDE ELEVATION

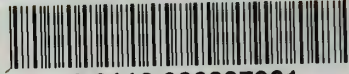


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